

REMARKS

The present amendment is submitted in response to the Office Action mailed June 10, 2010, and in furtherance of the personal interview held on July 15, 2010, which was attended by Examiner Clark F. Dexter, the inventor, Walter ("Blackie") Collins, and the undersigned attorney, David Carlson, Reg. No. 31,153.

Upon entry of the present amendment, claims 1-13, 15-22, 45, 52, 54, 58-60, 62, 63, 65, and 66-73 will be pending. Claims 23-25, 27-29, 34, 36 and 37 are cancelled herewith, claims 45, 52, 54, 58-60, 62, 63, 65 and 66 are amended, and dependent claims 67-73 are newly submitted. No new matter has been introduced.

The claim listing above is provided in the format established under 37 CFR § 1.173, while a complete listing of the pending claims with markings to show amendments is provided for the Examiner's convenience as Appendix A.

The Examiner is thanked for his allowance of claims 1-13 and 15-22. The Examiner is also thanked for the personal interview conducted on July 15, 2010, a summary of which is provided in detail below.

Summary of Personal Interview With the Examiner

Applicant thanks Examiner Dexter for the personal interview conducted on July 15, 2010. The time the Examiner took to study the prototypes and working models of the invention and the prior art, as well as to discuss individual claims and their merits in light of the prior art is greatly appreciated.

During the interview, the inventor, Blackie Collins, explained his first design, a knife including a wire spring to assist opening, and demonstrated his first working model which included a tang extension extending out of the handle for engagement by a user to open the knife. A picture of this knife is shown for informational purposes in the Information Disclosure Statement which is submitted herewith. Of course, this working model is not prior art since it was made by the inventor himself a few months before the present application was filed. Various other knives were shown and demonstrated which make use of the present invention.

Another knife shown during the personal interview was an old style knife sold by Schrade under the brand name "Uncle Henry." This is a traditional pocket knife of the type sold

for many years in which a strong leaf spring is aligned with the back of the knife and presses against the tang of the blade to hold it in the closed position. The difference between this knife and the inventive knife was discussed in the interview, along with other prior art of record.

In addition, Mr. Collins built a rough prototype of the knife disclosed in the Brown patent, U.S. Patent No. 1,864,011, and demonstrated its operation and use, which were discussed in detail.

Various sample claims were also presented during the interview and language discussed which would be provided in the claims. Applicant agreed to make the various changes to the claims as discussed during the interview. Because of the number of changes and their nature, an agreement was reached that Applicant would prepare the claims as a formal amendment for submission to the Patent Office. This is that submission. Namely, the claim amendments submitted herewith reflect those that were specifically discussed and agreed upon during the personal interview. Similar changes have been made to all independent claims. Some dependent claims have been added as well.

During the interview, a number of pencil and pen markings, including deletion of words and addition of words, were made in order to reach agreement on the claim scope. The intent of the amendments which are submitted herewith is to follow that claim language in which agreement was reached. Upon a careful proofread, some minor changes have been made to the wording in specific claims in order to put the claims in proper grammatical structure and to improve the flow of claim language and wording. It is believed that the language and substance of the claims is the same as or consistent with the claims discussed and agreed on during the interview. If the Examiner believes that any of the claims or language are not according to those that were discussed and agreed upon, the Examiner is invited to call the undersigned attorney, David Carlson, in order to discuss these claims and get them corrected.

The recapture doctrine was also discussed, including a review of particular language in particular recent cases involving the doctrine. Among the reissue cases which were briefly discussed include *Ex Parte Henshaw et al.*, Appeal No. 2009-013798, decided April 13, 2010, and *Ex Parte Kirimoto et al.*, Appeal No. 10826173, decided August 17, 2009 (rehearing decision November 6, 2009). Some Federal Circuit decisions were also mentioned including *Ball Corp. v. United States*, 729 F.2d 1429 (Fed. Cir. 1984). The present application was filed as

a broadening reissue. The pending claims are broader in some respects and materially narrower in other respects. Namely, material limitations have been added to the present claims which make the claims narrower in material respects. These features which have been added were overlooked aspects of the invention which were not appreciated at the time the original patent application was pending, as discussed during the interview and as pointed out by the inventor, Blackie Collins. The purpose of the broadening reissue was to claim these features which were overlooked and not appreciated at the time the application was filed and prosecuted. These are the added limitations which are materially narrower than the features of the claims as issued. Accordingly, the claims are broader in some respects than the claims that issued and more narrow in other respects, the more narrow aspects being materially narrow limitations which define over the prior art of Brown and other prior art. Accordingly, it is believed that the present claims do not conflict with the rule against recapture. Rather, the present claims avoid the rule against recapture and can be properly granted, as discussed during the personal interview.

Information Disclosure Statement

An Information Disclosure Statement is submitted herewith. During the personal interview, it was discussed that a few pieces of prior art had recently come to the attention of the attorneys who are prosecuting this application. Accordingly, these additional pieces of art are submitted herewith. It is believed that none of this art is as relevant as the art which is already of record. For example, several prior art references submitted herewith show a knife having a tang portion that protrudes from the blade which can be used to help manually move the blade away from a closed position; such a feature is shown, for example, in U.S. Patent No. 530,792 to Nordlow, which is already of record. None of these have a spring to assist in the opening of the blade. Nevertheless, out of abundance of caution and to bring to light all the art which Applicant is aware of, the additional references are submitted herewith.

Response to Rejection Under 35 U.S.C. § 112, first paragraph

The Examiner has rejected claims 23-25, 27-29, 54, 58-60, 62, 63, 65 and 66 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Although applicant disagrees with the basis of these rejections, claims 23-25 and 27-29 have been canceled herein, and thus the rejection of those claims is moot. The remaining objections have been obviated by amendments to claims 54, 58, 59, 62, 63, 65 and 66 or have otherwise been overcome by clarification of the operational characteristics of embodiments of the present invention, as discussed in the interview. For the sake of clarity, Applicant reiterates that the disclosure of the present invention clearly supports one hand operation of a knife using an extended portion of the tang of the blade, such as engagement portion C, or a contact pin 63' extending from the blade, for example. See, for example, the issued patent, which contains the text of the application as originally filed, at column 5, lines 8-17 and lines 39-45.

In view of the above, Applicant respectfully requests that the rejections under 35 U.S.C. § 112, first paragraph, be withdrawn.

Brief Overview of Embodiments of the Invention

Embodiments of the present invention are directed toward a knife which may be easily opened with one hand with a spring to assist in the opening. The ability to open a knife with a single hand assisted by a spring is an extremely useful feature. Many times a user will wish to cut a rope while holding one end of the rope tight with one hand. In order to facilitate one hand opening of the knife, embodiments of the present invention include a biasing or spring assembly that operates between the handle and the blade of the knife in a novel manner. Specific overlooked aspects pertaining to the interoperation of the spring assembly with the blade have been added to each of the independent claims herein to more narrowly define embodiments of the present invention. As discussed below, these narrowing amendments are directed to overlooked aspects not presented in Applicant's original application and which clearly define over the prior art.

Applicant notes that this amendment is submitted after the present application was withdrawn from Appeal and another Office Action mailed by the Patent Office. Accordingly, the Appeal Brief was not reviewed by the Board or considered on its merits. Following a detailed review of the claims and the prior art after receiving the most recent Office Action, new amendments have been made to the claims and new remarks submitted, which makes the prior claims and remarks of the Appeal Brief and other prior prosecution history of this application

moot, and therefore irrelevant. For example, some of the language of the prior claims has been removed or amended, which makes that claim language as well as the accompany remarks no longer relevant. The present claims and remarks, including those addressing the recapture doctrine, therefore replace all prior remarks and amendments.

Response to Rejections Based on Prior Art

Claims 34, 36 and 45 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 1,864,011 to Brown. Claim 52 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Brown or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of U.S. Patent No. 5,131,149 to Thompson. Claim 54 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Thompson. Claims 58, 59, 62 and 63 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of U.S. Patent No. 5,009,008 to Yablonovitch or U.S. Patent No. 5,095,624 to Ennis. Claim 60 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Yablonovitch or Ennis, and in further view of Thompson. Claim 66 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Yablonovitch or Ennis, and in further view of U.S. Patent No. 5,293,690 to Cassady or U.S. Patent No. 4,985,998 to Howard. The references noted above are collectively referred to hereinafter as the “cited references.”

Each of independent claims 45, 52, 58, 62, 63, 65 and 66 have been amended to, among other things, set forth structure to distinguish the spring action of the present invention over the prior art, including the cited references. For example, the amended claims provide a biasing or spring assembly that is configured to act on the tang of a knife blade to apply a force that varies in direction with respect to a knife pivot point to provide a moment in a desired direction – either a closing or an opening direction.

For example, amended claim 45 recites, *inter alia*, “a spring assembly operatively coupled between the handle and the blade to act on the blade to urge the blade toward the deployed position when the blade is moved by an external force from the stowed position toward the deployed position at least past a transition position, the spring assembly positioned, relative to the tang of the blade, to apply a first force in a first direction that is offset from the blade pivot point to create a first moment about the rotation axis while the blade is positioned between the

transition position and the deployed position, for biasing the blade towards the deployed position.”

As another example, amended claim 52 recites, *inter alia*, “a spring operatively coupled between the handle and the blade for holding the blade in the retracted position while the blade is in the retracted position and for biasing the blade toward the extended position when the blade is moved from the retracted position past a transition position toward the extended position, the spring positioned, relative to the tang of the blade, to apply a first force in a first direction that is offset from the rotation axis when the blade is in the retracted position to create a moment about the rotation axis for holding the blade in the retracted position.”

As another example, amended claim 58 recites, *inter alia*, “a biasing assembly including a spring, the biasing assembly having a first end connected to the handle remote from the rotation axis and a second end proximate the rotation axis to act on the blade, the second end of the biasing assembly configured to apply an opening force to the blade to bias the blade toward the extended position after the blade is moved from the retracted position past a transition position between the retracted position and the extended position, the second end of the biasing assembly moving away from a back of the handle towards a front of the handle as the blade moves beyond the transition position towards the extended position and the opening force being applied at a location radially offset from the rotation axis and in a direction offset from the rotation axis to create a moment about the rotation axis.”

As another example, amended claim 62 recites, *inter alia*, “a biasing assembly including a spring, the biasing assembly operatively coupled to the handle and configured to apply a closing force on the blade while the blade is in the retracted position and to act on the blade to bias the blade toward the extended position when the blade is moved from the retracted position past a transition position toward the extended position, the spring positioned, relative to the tang of the blade, to apply a first force in a first direction that is offset from the rotation axis when the blade is positioned between the transition position and the extended position to bias the blade towards the extended position.”

As another example, amended claim 63 recites, *inter alia*, “a biasing assembly including a spring, the biasing assembly coupled to and positioned within the handle to act on the blade and configured to resist rotation of the blade toward the extended position while the blade

is in the retracted position and to bias the blade toward the extended position after the blade is manually moved from the retracted position past a transition position, the spring positioned, relative to the tang of the blade, to apply a force in a direction offset from the rotation axis to create a moment about the rotation axis to bias the blade away from the retracted position and towards the extended position when the blade is moved beyond the transition position towards the extended position.”

As another example, amended claim 65 recites, *inter alia*, “a plunger including a spring, the plunger pivotally connected to the blade at a first end, and connected to the handle at a second end, the spring being maximally deformed when the blade is pivoted to an intermediate position between the extended position and the retracted position, the spring biasing the blade toward the extended position when the blade is positioned between the extended position and the intermediate position, and biasing the blade toward the retracted position when the blade is positioned between the retracted position and the intermediate position, and the first end of the plunger moving away from a back of the handle towards a front of the handle when the blade approaches the intermediate position from the retracted position.”

As still yet another example, amended claim 66 recites, *inter alia*, “a biasing assembly including a spring operatively coupled between the handle and the blade, the biasing assembly configured to resist rotation of the blade toward the extended position while the blade is in the retracted position and to bias the blade towards the extended position when the blade is moved from the retracted position past a transition position toward the extended position, the spring positioned, relative to the tang of the blade, so as to apply a first force in a first direction that is offset from the rotation axis when the blade is in the retracted position to create a moment about the rotation axis for holding the blade in the retracted position and to apply a second force in a second direction that is offset from the rotation axis to create a second moment about the rotation axis to bias the blade towards the extended position when the blade is moved beyond the transition position towards the extended position.”

The cited references do not singly, or in any motivated combination, teach or suggest the aforementioned features of the embodiments recited in independent claims 45, 52, 58, 62, 63, 65 and 66. For example, Brown – the primary reference relied upon by the Examiner in making the present claim rejections – is drawn to a folding knife having extendable side plates

that requires two hands to operate. The side plates 3 serve as extension springs that act linearly along the length of the knife (*i.e.*, extend towards the ends the handle and contract towards the center of the handle) as a user pulls a knife blade 1 from the handle using a thumbnail or fingernail of his or her hand opposing the one holding the knife for pulling the blade open or closed. *See* Brown, Figure 1. The springs 3 of Brown are restrained by pins 11, 12 in a line so that the spring force is always applied in a longitudinal direction. In this manner, the springs 3 act in a longitudinal direction in line with a blade pivot point throughout the duration of blade deployment, and hence the springs 3 of Brown are not positioned such that a direction of applied force is varied during deployment of the blades 1 or offset from a blade pivot point. Also, the ends of the springs 3 are restrained from moving away from the back of the handle towards the front of the handle during blade deployment by pins 11, 12 riding in longitudinal slots 5, 6 of the springs 3. Consequently, Brown fails to teach or suggest the aforementioned features of the embodiments recited in independent claims 45, 52, 58, 62, 63, 65 and 66. The other cited references fail to cure the deficiencies of Brown and have only been cited for features unrelated to spring action.

Further, although the present claims are not rejected over FR 1,171,740 to Pradel, which was cited in the prosecution of the original patent application, Applicant notes that Pradel likewise fails to teach or suggest the aforementioned limitations recited in independent claims 45, 52, 58, 62, 63, 65 and 66 because, among other deficiencies, there is no blade transition position before which the spring will urge the blade closed and after which the spring will urge the blade open. Rather, Pradel is directed to an automatic style knife in which the blade is forced open by a spring from the closed position by squeezing the knife handle, which release a pin. The spring force acts to open the blade throughout the entire blade deployment.

Accordingly, Applicant believes that independent claims 45, 52, 58, 62, 63, 65 and 66 as now presented are clearly patentable over the prior art and requests allowance of such claims. Further, because dependent claims 54, 59, 60 and 67-73 depend from one of allowable independent claims 45, 52, 58, 62, 63, 65 and 66, and also because they include additional limitations, such claims are likewise allowable.

Response to Recapture Rejections Under 35 U.S.C. § 251

The currently pending claims are narrower in some respects, while broader in others. Namely, as previously discussed, material limitations have been added to the present claims which make the claims materially narrower in other respects. These features which have been added were overlooked aspects of the invention which were not appreciated at the time the original patent was pending, as discussed during the interview and as pointed out by the inventor, Blackie Collins. These features which have been added are also material as they patentably distinguish the embodiments recited in the pending claims over the prior art as discussed above. Consequently, the present claims are not an improper recapture of subject matter. *See Ex Parte Kirimoto et al.*, Appeal No. 10826173, decided August 17, 2009, at p. 42 (“[W]e can resolve a recapture rejection by determining whether the ‘narrower in another aspect’ (*i.e.*, a limitation of a reissue claims) was (1) overlooked during original prosecution and (2) is material.”). *See also Ex Parte Henshaw et al.*, Appeal No. 2009-013798, decided April 13, 2010, at pp. 17-18.

Accordingly, Applicant requests that the rejections under 35 U.S.C. § 251 be withdrawn.

Conclusion

In view of the above, Applicant respectfully submits that all of the claims remaining in the application are allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Application No. 09/680,697
Reply to Office Action dated June 10, 2010

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
SEED Intellectual Property Law Group PLLC

/David Carlson/
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Enclosure:
Appendix A

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